

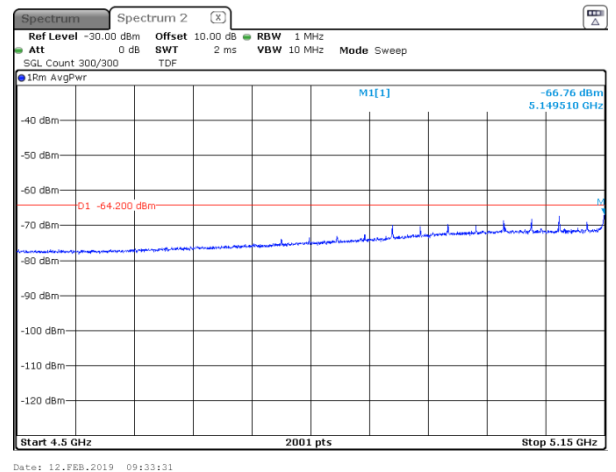
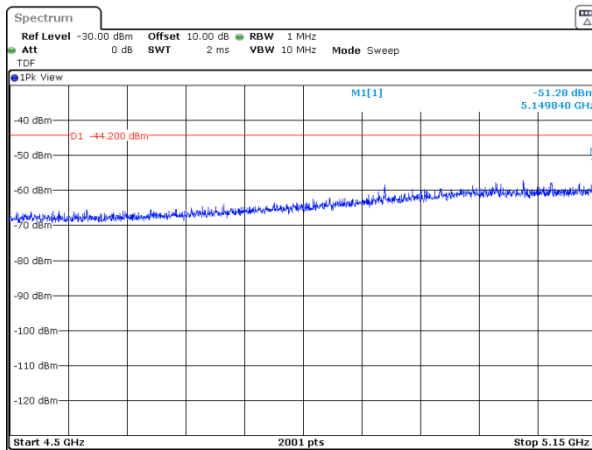


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

**Plot 7.12.2 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

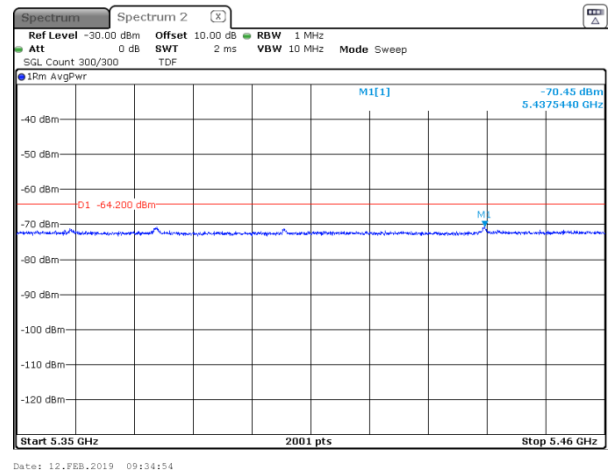
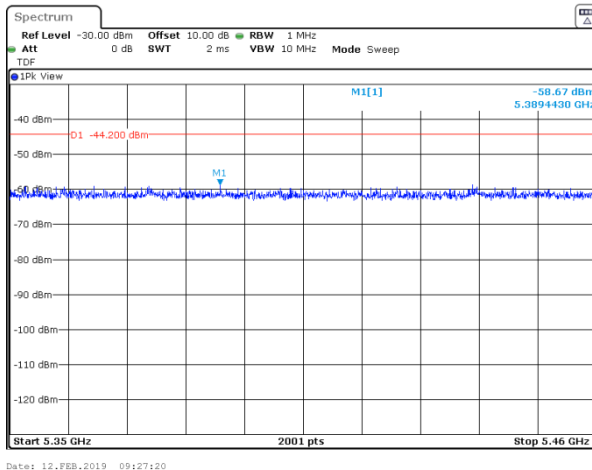
CARRIER FREQUENCY 5160 MHz  
CHANNEL BANDWIDTH 10 MHz



\*Applied Limit = Specification limit – Antenna Gain – Antenna Array gain

**Plot 7.12.3 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5160 MHz  
CHANNEL BANDWIDTH 10 MHz



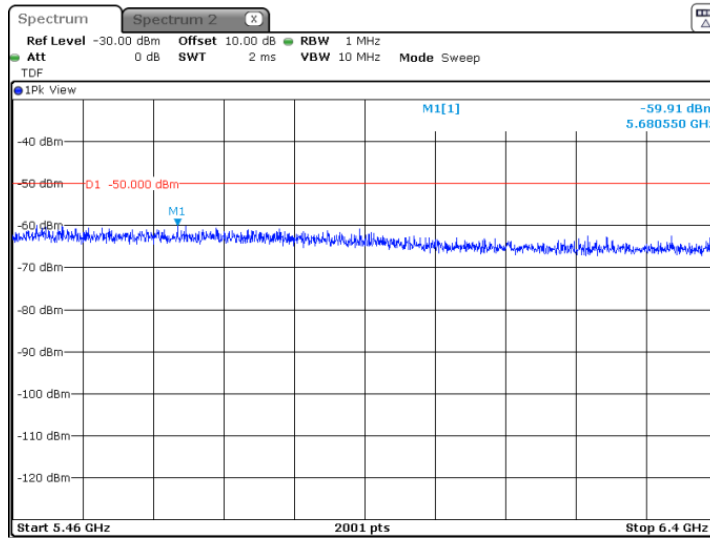


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.4 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5160 MHz  
CHANNEL BANDWIDTH 10 MHz



Date: 12.FEB.2019 09:50:46

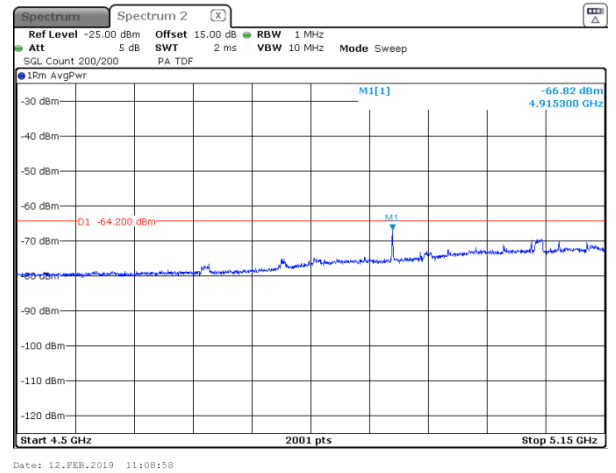
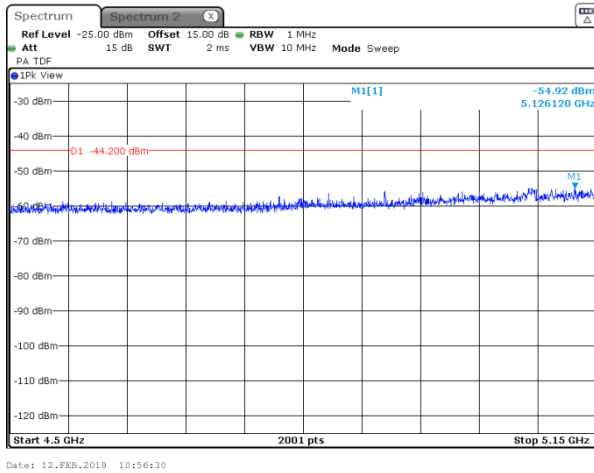


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

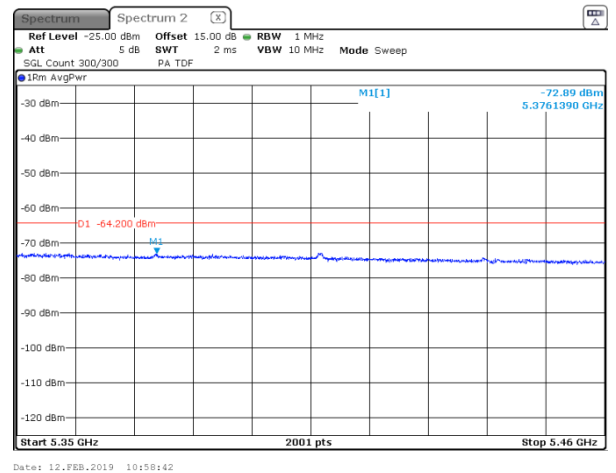
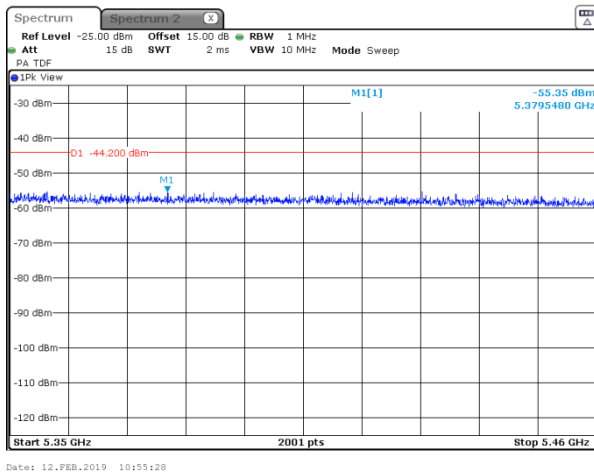
**Plot 7.12.5 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 10 MHz



**Plot 7.12.6 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 10 MHz



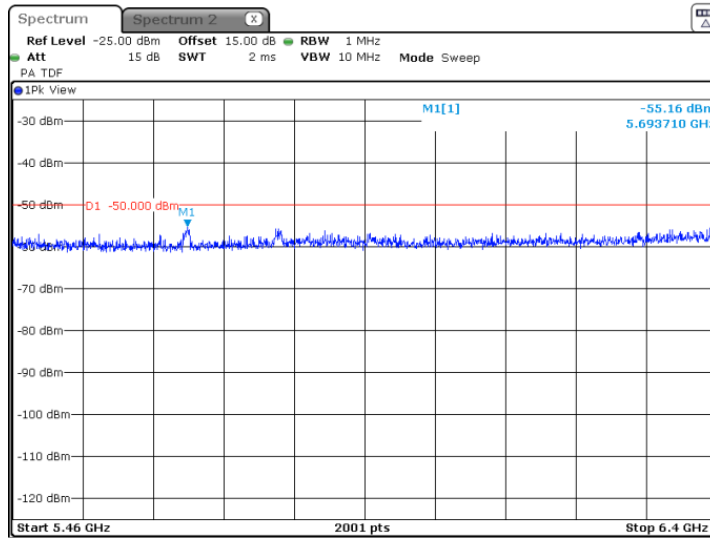


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.7 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 10 MHz



Date: 12.FEB.2019 10:54:25

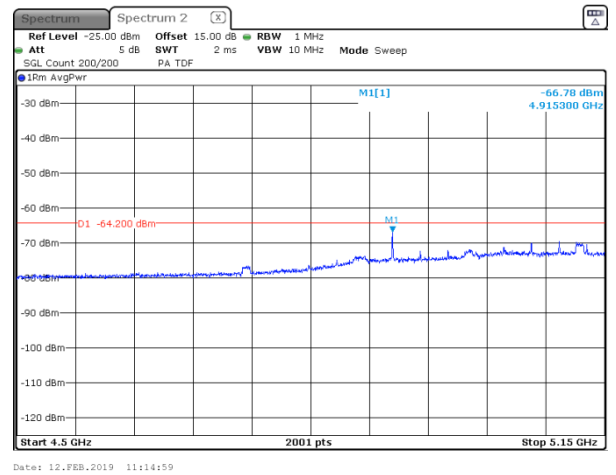
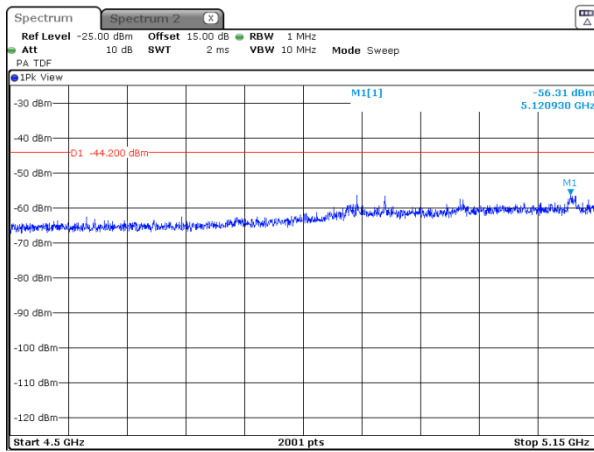


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

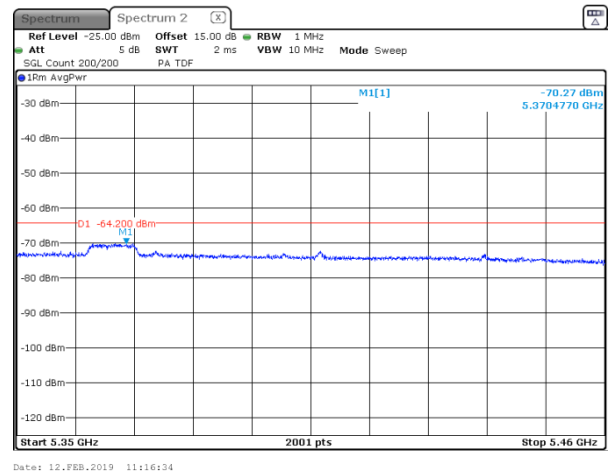
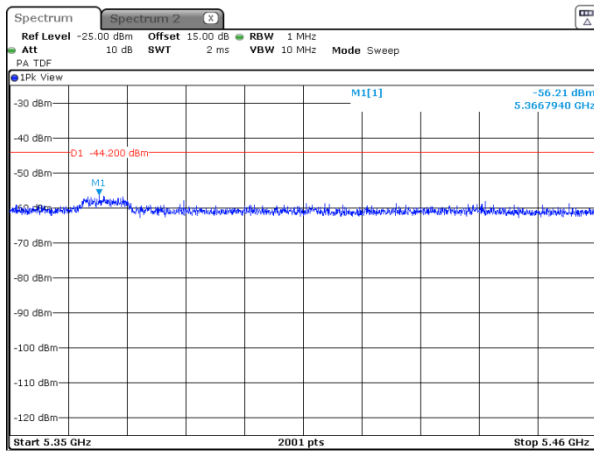
**Plot 7.12.8 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5245 MHz  
CHANNEL BANDWIDTH 10 MHz



**Plot 7.12.9 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5245 MHz  
CHANNEL BANDWIDTH 10 MHz



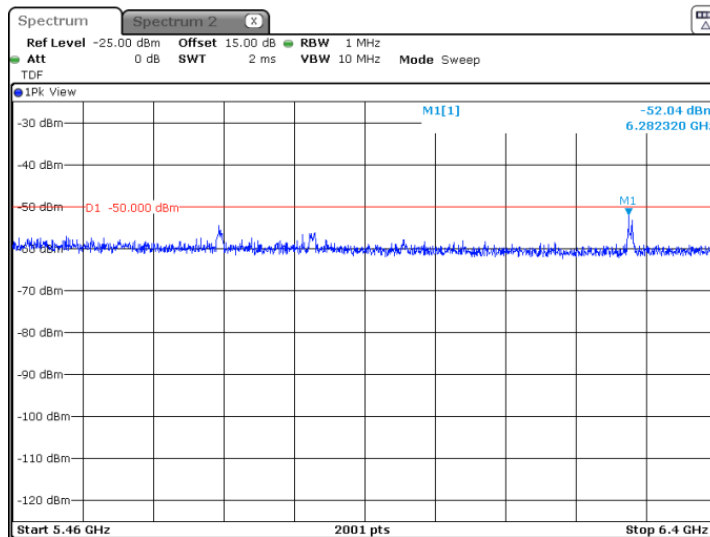


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.10 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5245 MHz  
CHANNEL BANDWIDTH 10 MHz



Date: 12.FEB.2019 11:20:33

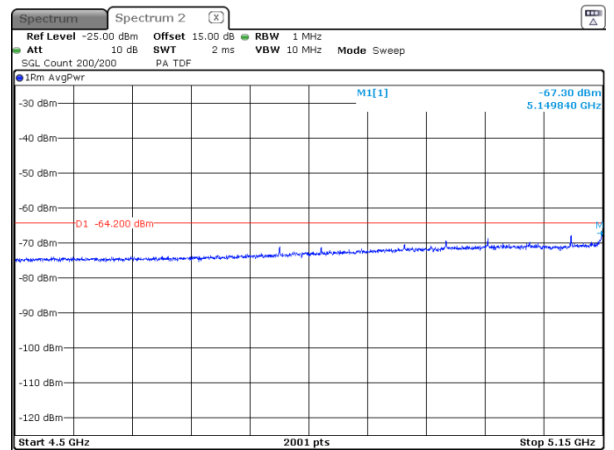
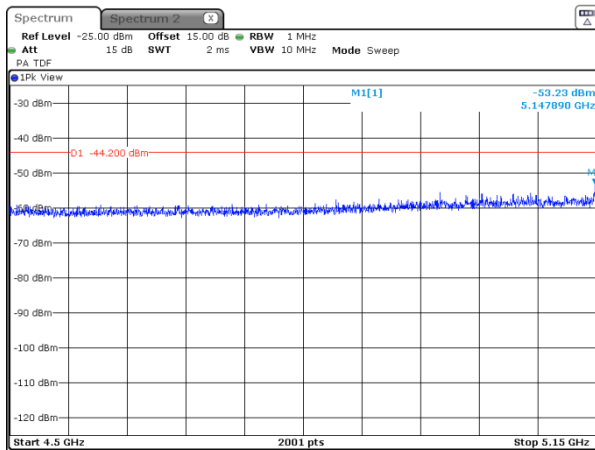


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

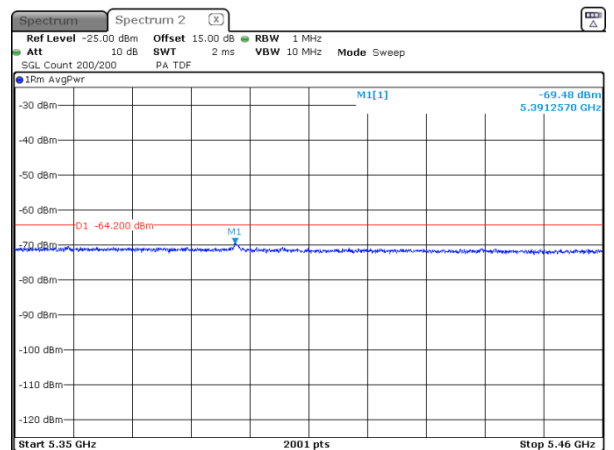
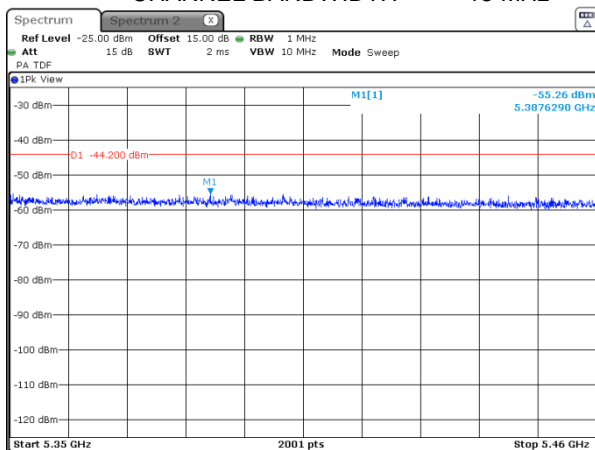
**Plot 7.12.11 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5165 MHz  
CHANNEL BANDWIDTH 15 MHz



**Plot 7.12.12 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5165 MHz  
CHANNEL BANDWIDTH 15 MHz



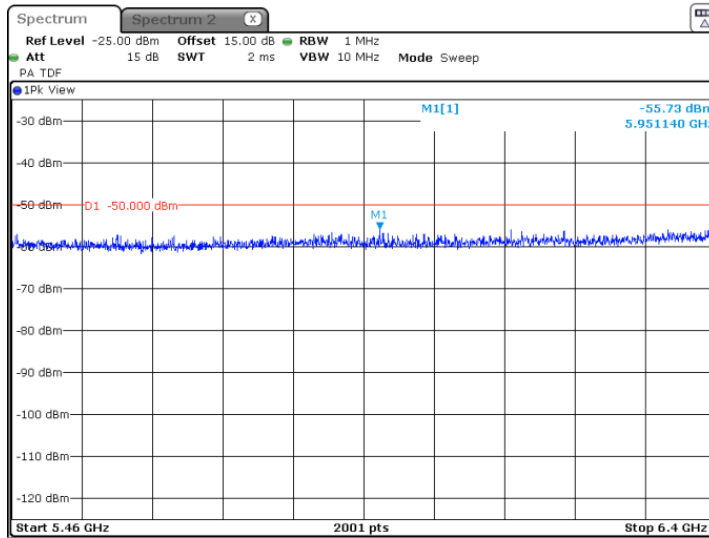


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.13 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5165 MHz  
CHANNEL BANDWIDTH 15 MHz



Date: 12.FEB.2019 11:48:06



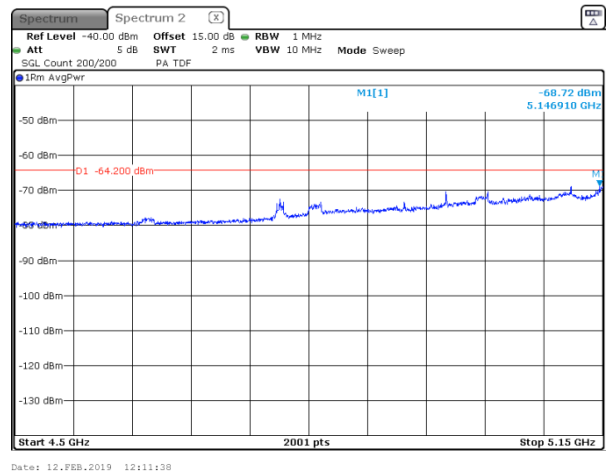
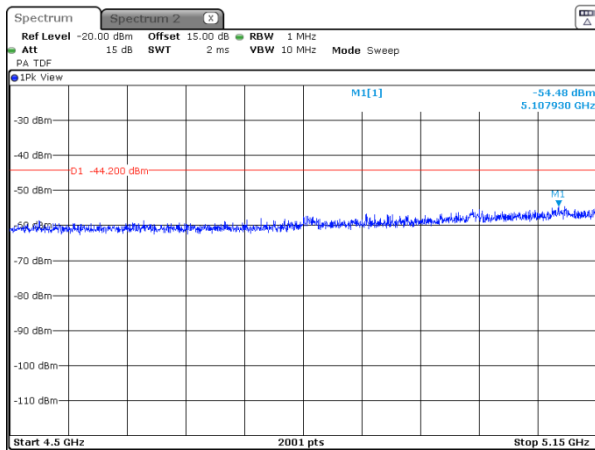


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

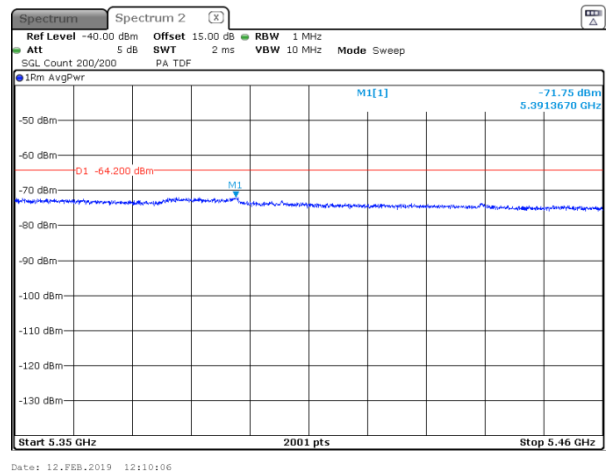
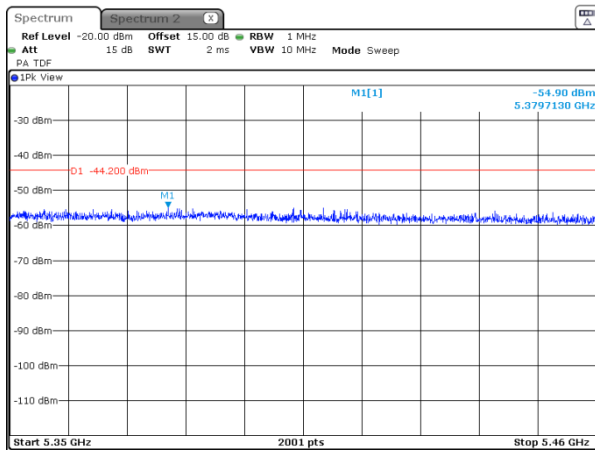
**Plot 7.12.14 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 15 MHz



**Plot 7.12.15 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 15 MHz



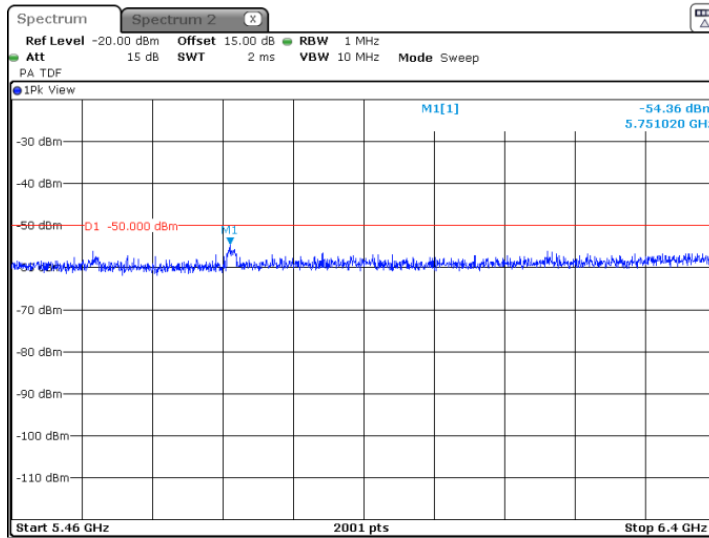


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.16 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 15 MHz



Date: 12.FEB.2019 12:07:16

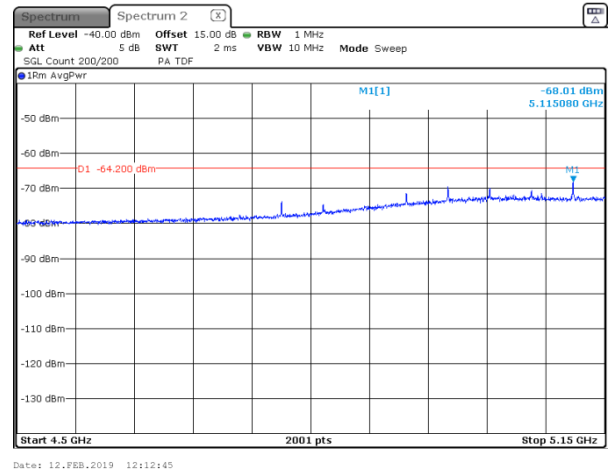
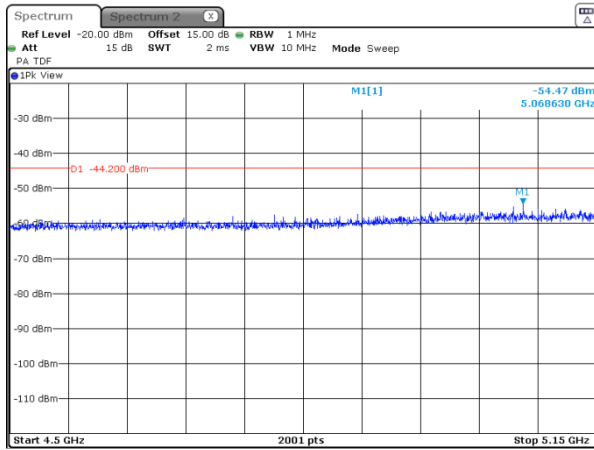


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

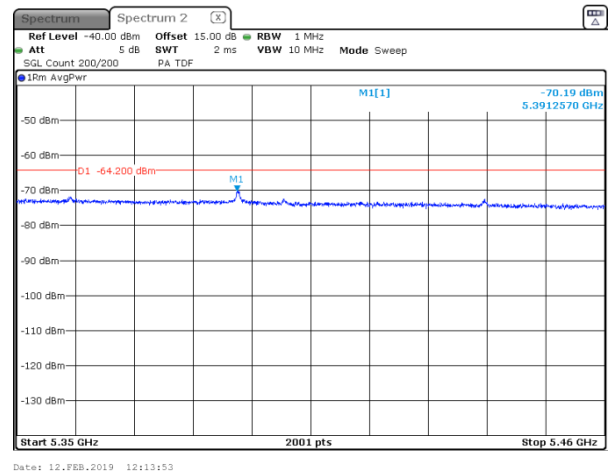
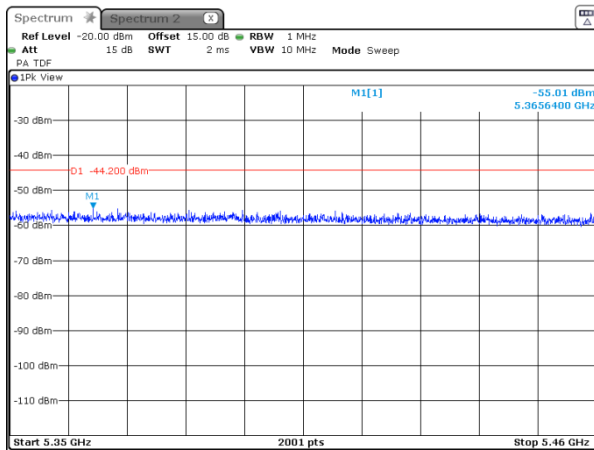
**Plot 7.12.17 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5240 MHz  
CHANNEL BANDWIDTH 15 MHz



**Plot 7.12.18 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5240 MHz  
CHANNEL BANDWIDTH 15 MHz



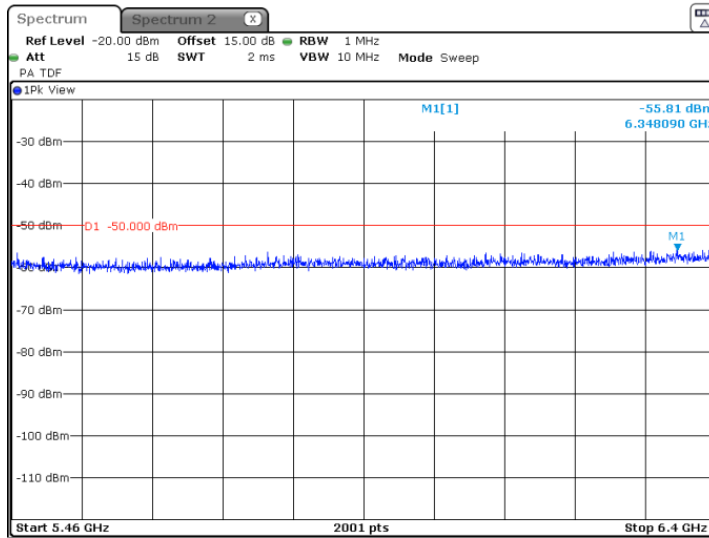


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.19 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5240 MHz  
CHANNEL BANDWIDTH 15 MHz



Date: 12.FEB.2019 12:17:15

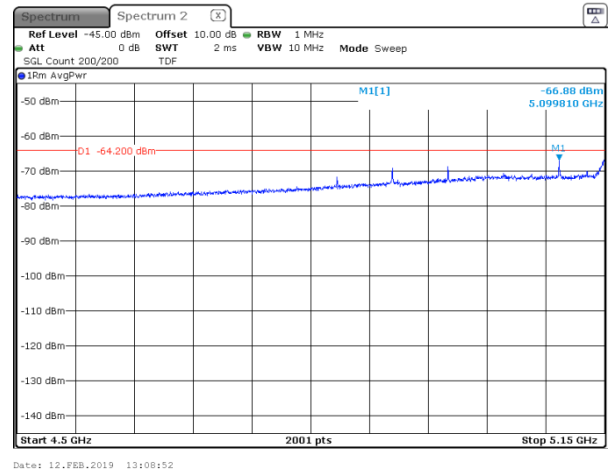
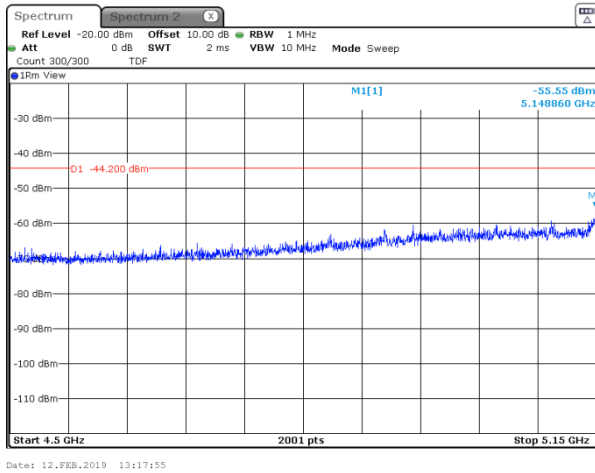


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

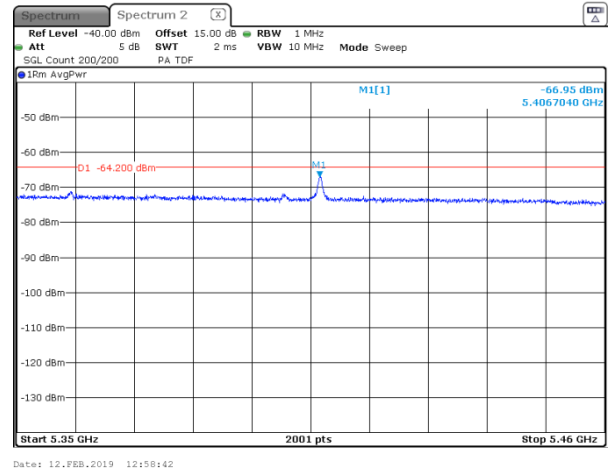
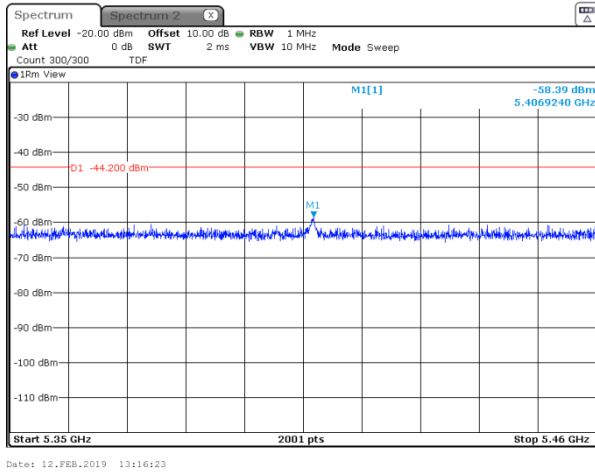
**Plot 7.12.20 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5165 MHz  
CHANNEL BANDWIDTH 20 MHz



**Plot 7.12.21 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5165 MHz  
CHANNEL BANDWIDTH 20 MHz



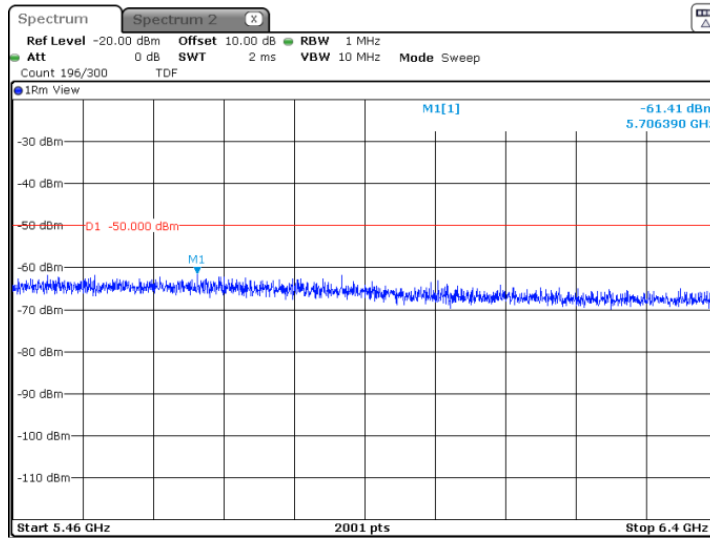


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.22 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5165 MHz  
CHANNEL BANDWIDTH 20 MHz



Date: 12.FEB.2019 13:15:27

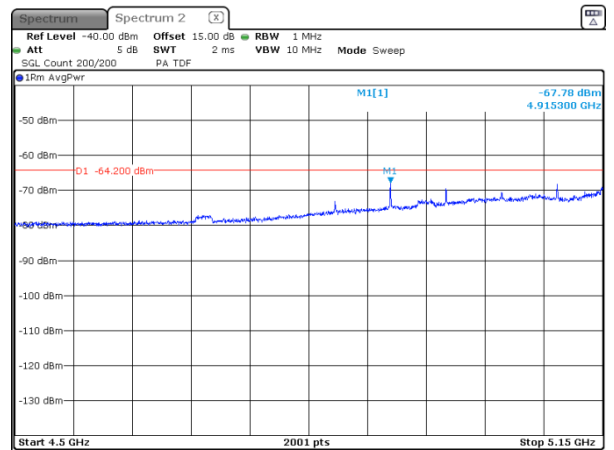
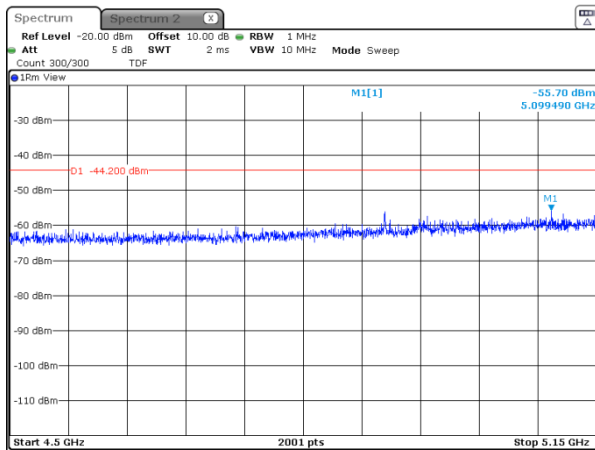


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

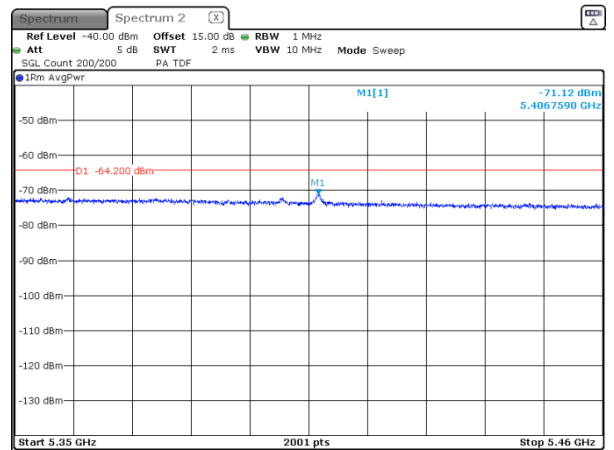
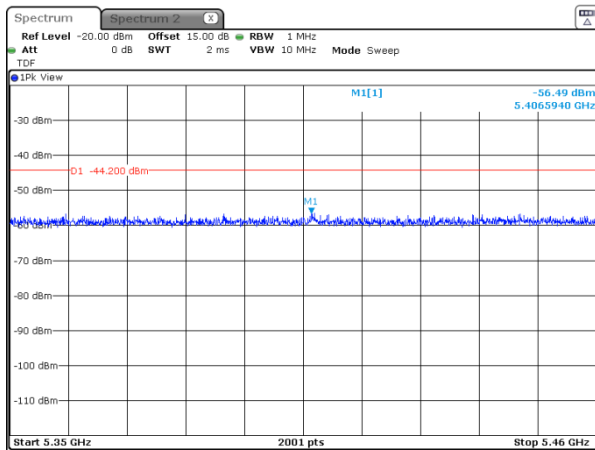
**Plot 7.12.23 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 20 MHz



**Plot 7.12.24 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 20 MHz



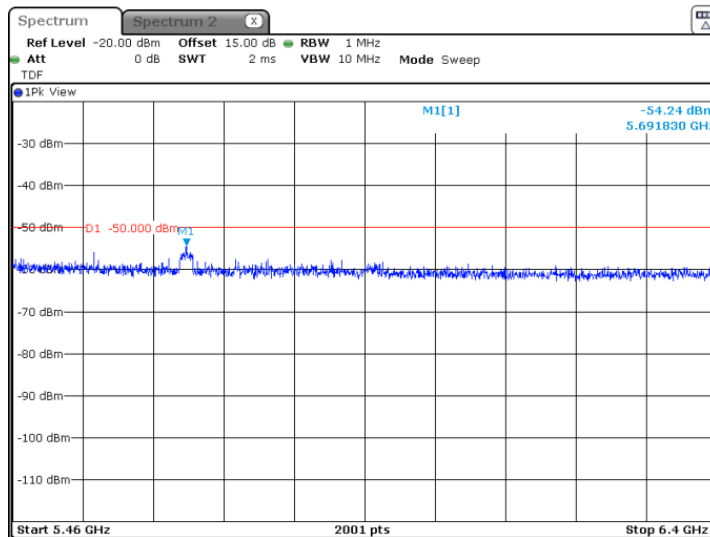


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.25 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5200 MHz  
CHANNEL BANDWIDTH 20 MHz



Date: 12.FEB.2019 14:58:49



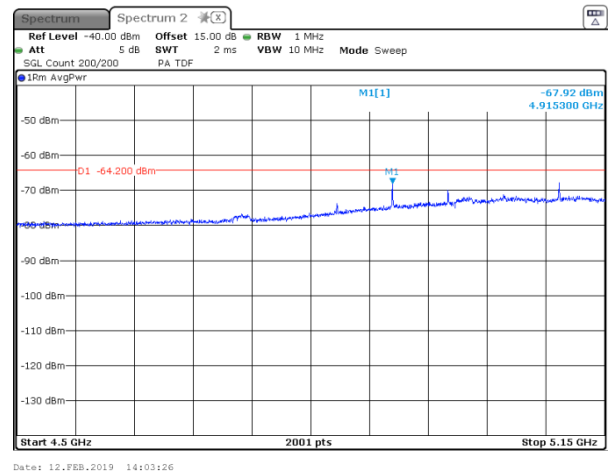
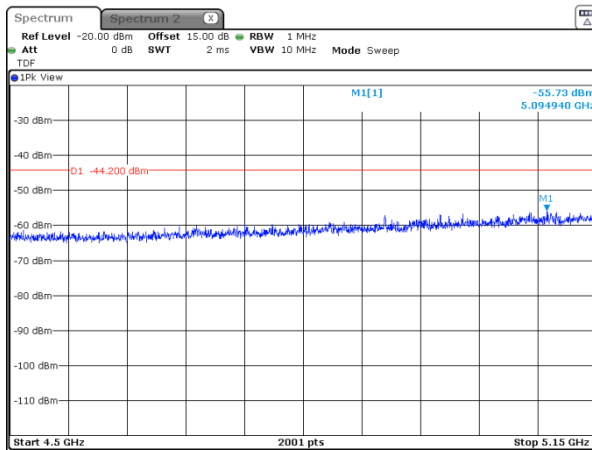


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 10-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %
<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>	

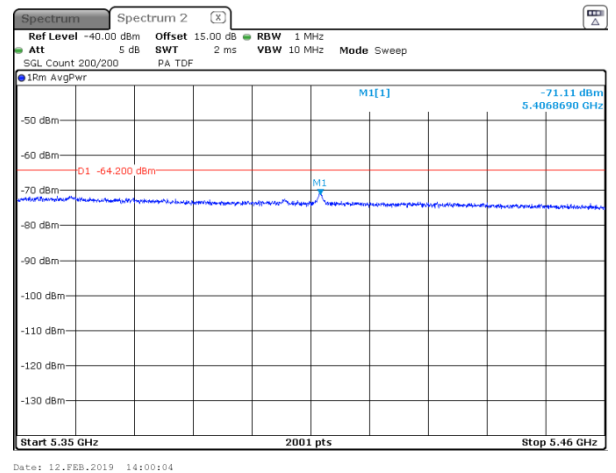
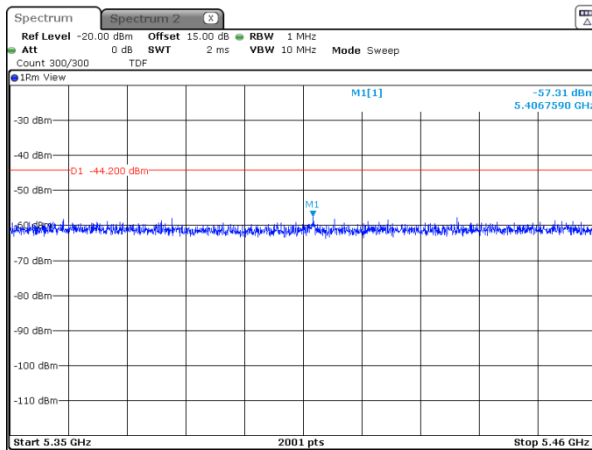
**Plot 7.12.26 Conducted spurious emission measurements in the range 4.5 – 5.15 GHz**

CARRIER FREQUENCY 5240 MHz  
CHANNEL BANDWIDTH 20 MHz



**Plot 7.12.27 Conducted spurious emission measurements in the range 5.35 – 5.46 GHz**

CARRIER FREQUENCY 5240 MHz  
CHANNEL BANDWIDTH 20 MHz



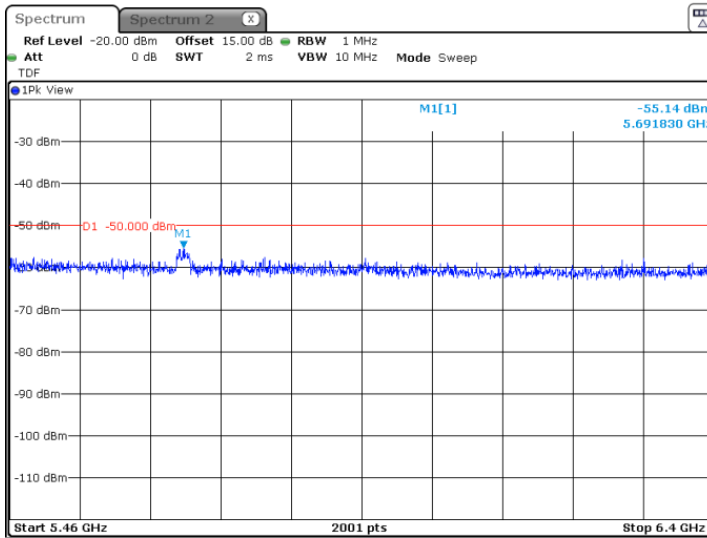


HERMON LABORATORIES

<b>Test specification:</b> FCC section 15.407(b), RSS-247 section 6.2.1.2, Conducted out of band emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS		
<b>Date(s):</b> 10-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 48 %	<b>Air Pressure:</b> 1019 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.12.28 Conducted spurious emission measurements in the range 5.46 – 6.4 GHz**

CARRIER FREQUENCY 5240 MHz  
CHANNEL BANDWIDTH 20 MHz



Date: 12.FEB.2019 15:02:29



<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions	
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7	
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS
<b>Date(s):</b> 07-Feb-19	
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %
<b>Remarks:</b>	

### 7.13 Field strength of undesirable emissions at 5150 – 5250 MHz range

#### 7.13.1 General

This test was performed to measure field strength of spurious emissions from the EUT. Specification test limits are given Table 7.13.1, Table 7.13.2

**Table 7.13.1 Unwanted emissions limits below 1 GHz and within restricted bands above 1 GHz**

Frequency, MHz	Field strength at 3 m, dB(μV/m)*		
	Peak	Quasi Peak	Average
0.009 – 0.090	148.5 – 128.5	NA	128.5 – 108.5**
0.090 – 0.110	NA	108.5 – 106.8**	NA
0.110 – 0.490	126.8 – 113.8	NA	106.8 – 93.8**
0.490 – 1.705	NA	73.8 – 63.0**	NA
1.705 – 30.0*		69.5	
30 – 88		40.0	
88 – 216		43.5	
216 – 960		46.0	
960 - 1000		54.0	
1000 – 40000	74.0	NA	54.0

\*- The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows:

$$Lims_2 = Lims_1 + 40 \log (S_1/S_2),$$

where S<sub>1</sub> and S<sub>2</sub> – standard defined and test distance respectively in meters.

\*\* - The limit decreases linearly with the logarithm of frequency.

**Table 7.13.2 EIRP of undesirable emission limits outside restricted bands (above 1 GHz)**

Operating frequency band, GHz	EIRP of spurious, dBm/MHz	Field strength at 3 m, dB(μV/m)
5.150 – 5.250	-27	68.23
5.250 – 5.350	-27	68.23
5.470 – 5.725	-27	68.23
5.725 – 5.850	-27 (below 5.650 GHz and above 5.925 GHz)	68.23
	-27 increasing linearly to 10 (in 5.650 - 5.700 GHz and 5.875 - 5.925 GHz)	68.23 - 105.23*
	10 increasing linearly to 15.6 (in 5.700 - 5.720 GHz and 5.855 - 5.875 GHz)	105.23 - 110.83*
	15.6 increasing linearly to 27 (in 5.720 - 5.725 GHz and 5.850 - 5.855 GHz)	110.83 - 122.23*



<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Test procedure for spurious emission field strength measurements in 9 kHz to 30 MHz band**

7.13.1.1 The EUT was set up as shown in Figure 7.13.1 energized and the performance check was conducted.

7.13.1.2 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360° and the measuring antenna was rotated around its vertical axis.

7.13.1.3 The worst test results (the lowest margins) were recorded and shown in the associated plots.

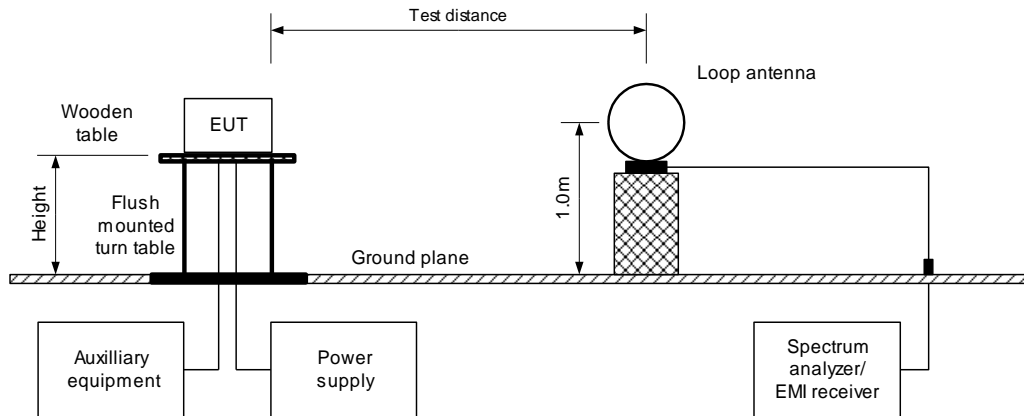
**Test procedure for spurious emission field strength measurements above 30 MHz**

7.13.1.4 The EUT was set up as shown in Figure 7.13.2, Figure 7.13.3, energized and the performance check was conducted.

7.13.1.5 The specified frequency range was investigated with antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360°, the measuring antenna height was changed from 1 to 4 m, its polarization was switched from vertical to horizontal.

7.13.1.6 The worst test results (the lowest margins) were recorded and shown in the associated plots.

**Figure 7.13.1 Setup for spurious emission field strength measurements below 30 MHz**





<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS		
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

Figure 7.13.2 Setup for spurious emission field strength measurements from 30 to 1000 MHz

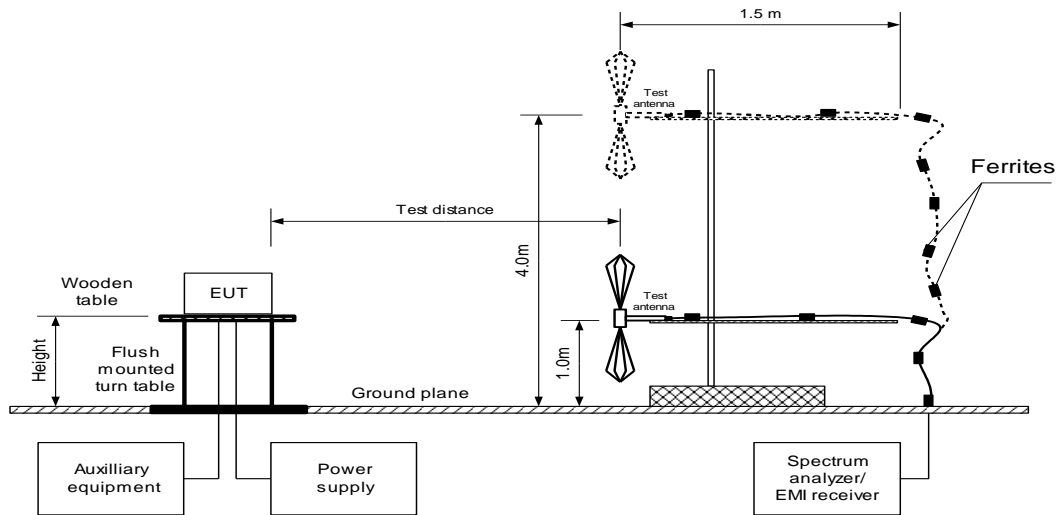
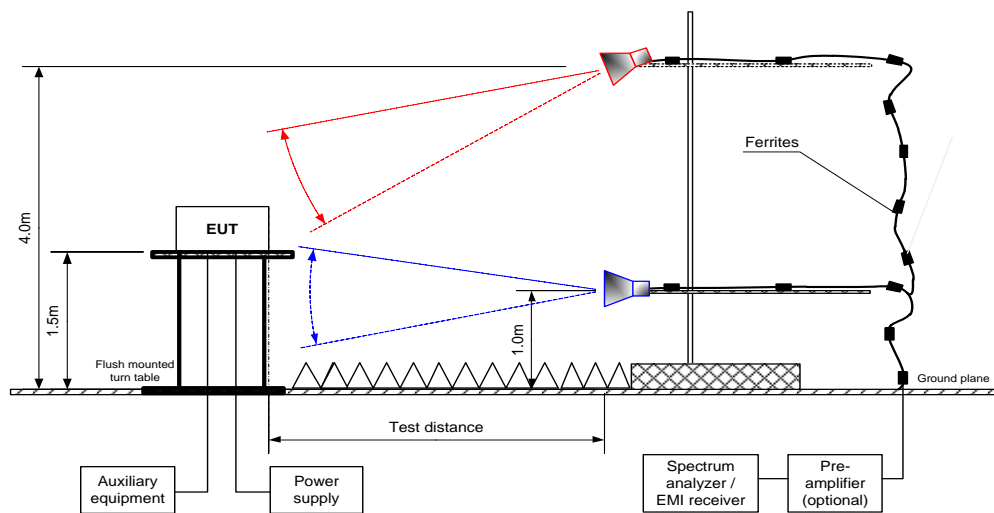


Figure 7.13.3 Setup for spurious emission field strength measurements above 1000 MHz





<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Table 7.13.3 Field strength of spurious emissions below 1 GHz**

ASSIGNED FREQUENCY BAND: 5.15 – 5.25 GHz  
 INVESTIGATED FREQUENCY RANGE: 0.009 – 1000 MHz  
 TEST DISTANCE: 3 m  
 MODULATION: QPSK  
 TRANSMITTER OUTPUT POWER: Maximum  
 RESOLUTION BANDWIDTH: 1 kHz (9 kHz – 150 kHz)  
 9.0 kHz (150 kHz – 30 MHz)  
 120 kHz (30 MHz – 1000 MHz)  
 VIDEO BANDWIDTH: > Resolution bandwidth  
 TEST ANTENNA TYPE: Active loop (9 kHz – 30 MHz)  
 Biconilog (30 MHz – 1000 MHz)

Frequency, MHz	Peak emission, dB(µV/m)	Quasi-peak			Antenna polarization	Antenna height, m	Turn-table position**, degrees	Verdict
		Measured emission, dB(µV/m)	Limit, dB(µV/m)	Margin, dB*				
<b>Low, mid, high carrier frequency</b>								
32.08537	34.12	27.57	40.00	-12.43	Vertical	104.00	115.00	Pass
38.98023	34.57	30.38	40.00	-9.62	Vertical	100.00	171.00	
101.8665	36.72	33.93	43.50	-9.57	Vertical	100.00	-123.00	
245.7652	45.79	42.62	46.00	-3.38	Vertical	100.00	-33.00	
374.9810	40.55	37.94	46.00	-8.06	Vertical	132.00	-8.00	
874.9964	42.84	40.71	46.00	-5.29	Horizontal	140.00	-41.00	

\*- Margin = Measured emission - specification limit.  
 \*\*- EUT front panel refer to 0 degrees position of turntable.

**Table 7.13.4 Field strength of emissions above 1 GHz outside restricted bands**

ASSIGNED FREQUENCY BAND: 5.15 – 5.25 GHz  
 INVESTIGATED FREQUENCY RANGE: 1000 – 40000 MHz  
 TEST DISTANCE: 3 m  
 MODULATION: QPSK  
 TRANSMITTER OUTPUT POWER: Maximum  
 DETECTOR: USED: Peak  
 RESOLUTION BANDWIDTH: 1000 kHz  
 TEST ANTENNA TYPE: Biconilog (30 MHz – 1000 MHz)  
 Double ridged guide (above 1000 MHz)

Frequency, MHz	Antenna polarization	Antenna height, m	Azimuth, degrees*	Field strength of spurious, dB(µV/m)	Limit, dBµV/m	Margin, dB**	Verdict
<b>Low, mid, high carrier frequency</b>							
All emissions are more than 20 dB below the limit							Pass

\*- EUT front panel refers to 0 degrees position of turntable.  
 \*\*- Margin = Measured emission - specification limit.



<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Table 7.13.5 Field strength of spurious emissions above 1 GHz within restricted bands**

ASSIGNED FREQUENCY: 5.15 – 5.25 GHz  
 INVESTIGATED FREQUENCY RANGE: 1000 - 40000 MHz  
 TEST DISTANCE: 3 m  
 MODULATION: QPSK  
 DUTY CYCLE: 100 %  
 TRANSMITTER OUTPUT POWER: Maximum  
 DETECTOR USED: Peak  
 RESOLUTION BANDWIDTH: 1000 kHz  
 TEST ANTENNA TYPE: Double ridged guide

Frequency, MHz	Antenna		Azimuth, degrees*	Peak field strength(VBW=3 MHz)			Average field strength(VBW=1 kHz)				Verdict
	Polarization	Height, m		Measured, dB(µV/m)	Limit, dB(µV/m)	Margin, dB**	Measured, dB(µV/m)	Calculated, dB(µV/m)	Limit, dB(µV/m)	Margin, dB***	
Low, mid, high carrier frequency											
All emissions are more than 20 dB below the limit										Pass	

\* - EUT front panel refers to 0 degrees position of turntable.  
 \*\* - Margin, dB = Measured, dB(µV/m) – Limit, dB(µV/m)  
 \*\*\* - Margin, dB = Calculated, dB(µV/m) – Limit, dB(µV/m)

**Reference numbers of test equipment used**

HL 0446	HL 0604	HL 3903	HL 4355	HL 4360	HL 4933	HL 4956	HL 5405
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Full description is given in Appendix A.

**Table 7.13.6 Restricted bands according to FCC section 15.205**

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.37625 - 8.38675	73 - 74.6	399.9 - 410	2690 - 2900	10.6 - 12.7
0.495 - 0.505	8.41425 - 8.41475	74.8 - 75.2	608 - 614	3260 - 3267	13.25 - 13.4
2.1735 - 2.1905	12.29 - 12.293	108 - 121.94	960 - 1240	3332 - 3339	14.47 - 14.5
4.125 - 4.128	12.51975 - 12.52025	123 - 138	1300 - 1427	3345.8 - 3358	15.35 - 16.2
4.17725 - 4.17775	12.57675 - 12.57725	149.9 - 150.05	1435 - 1626.5	3600 - 4400	17.7 - 21.4
4.20725 - 4.20775	13.36 - 13.41	156.52475 - 156.52525	1645.5 - 1646.5	4500 - 5150	22.01 - 23.12
6.215 - 6.218	16.42 - 16.423	156.7 - 156.9	1660 - 1710	5350 - 5460	23.6 - 24
6.26775 - 6.26825	16.69475 - 16.69525	162.0125 - 167.17	1718.8 - 1722.2	7250 - 7750	31.2 - 31.8
6.31175 - 6.31225	16.80425 - 16.80475	167.72 - 173.2	2200 - 2300	8025 - 8500	36.43 - 36.5
8.291 - 8.294	25.5 - 25.67	240 - 285	2310 - 2390	9000 - 9200	Above 38.6
8.362 - 8.366	37.5 - 38.25	322 - 335.4	2483.5 - 2500	9300 - 9500	

**Table 7.13.7 Restricted bands according to RSS-Gen**

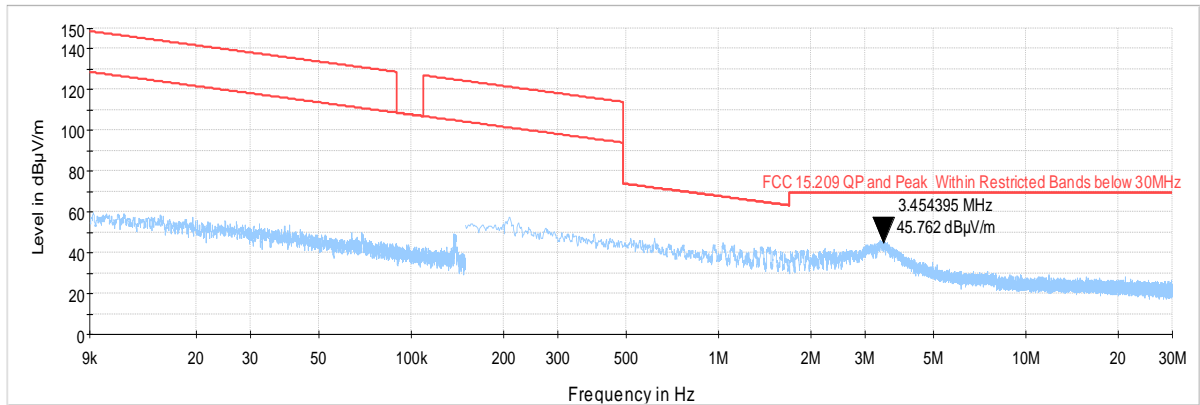
MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.291 - 8.294	16.80425 - 16.80475	399.9 - 410	3260 - 3267	10.6 - 12.7
2.1735 - 2.1905	8.362 - 8.366	25.5 - 25.67	608 - 614	3332 - 3339	13.25 - 13.4
3.020 - 3.026	8.37625 - 8.38675	37.5 - 38.25	960 - 1427	3345.8 - 3358	14.47 - 14.5
4.125 - 4.128	8.41425 - 8.41475	73 - 74.6	1435 - 1626.5	3500 - 4400	15.35 - 16.2
4.17725 - 4.17775	12.29 - 12.293	74.8 - 75.2	1645.5 - 1646.5	4500 - 5150	17.7 - 21.4
4.20725 - 4.20775	12.51975 - 12.52025	108 - 138	1660 - 1710	5350 - 5460	22.01 - 23.12
5.677 - 5.683	12.57675 - 12.57725	156.52475 - 156.52525	1718.8 - 1722.2	7250 - 7750	23.6 - 24
6.215 - 6.218	13.36 - 13.41	156.7 - 156.9	2200 - 2300	8025 - 8500	31.2 - 31.8
6.26775 - 6.26825	16.42 - 16.423	240 - 285	2310 - 2390	9000 - 9200	36.43 - 36.5
6.31175 - 6.31225	16.69475 - 16.69525	322 - 335.4	2655 - 2900	9300 - 9500	Above 38.6



<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS		
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

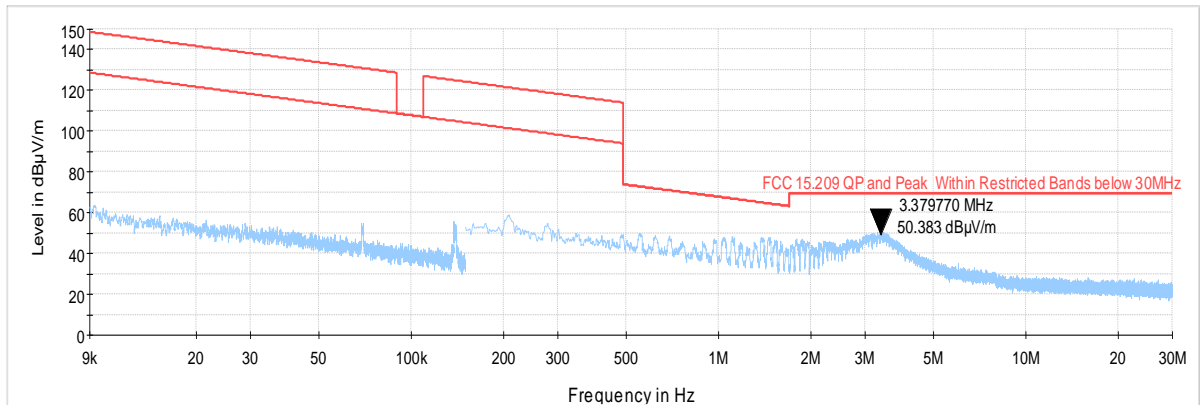
**Plot 7.13.1 Radiated emission measurements from 9 kHz to 30 MHz at the low carrier frequency**

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Front 0 degree



**Plot 7.13.2 Radiated emission measurements from 9 kHz to 30 MHz at the low carrier frequency**

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Front 90 degree



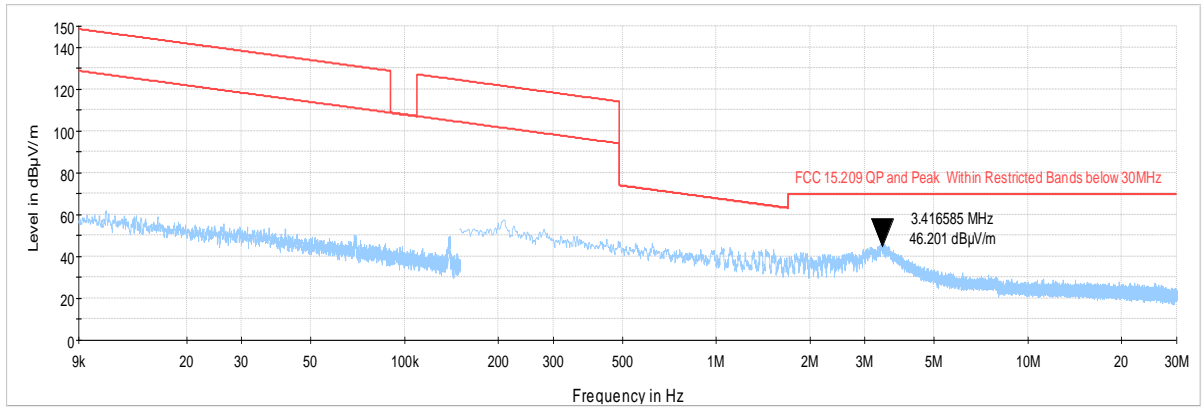




<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

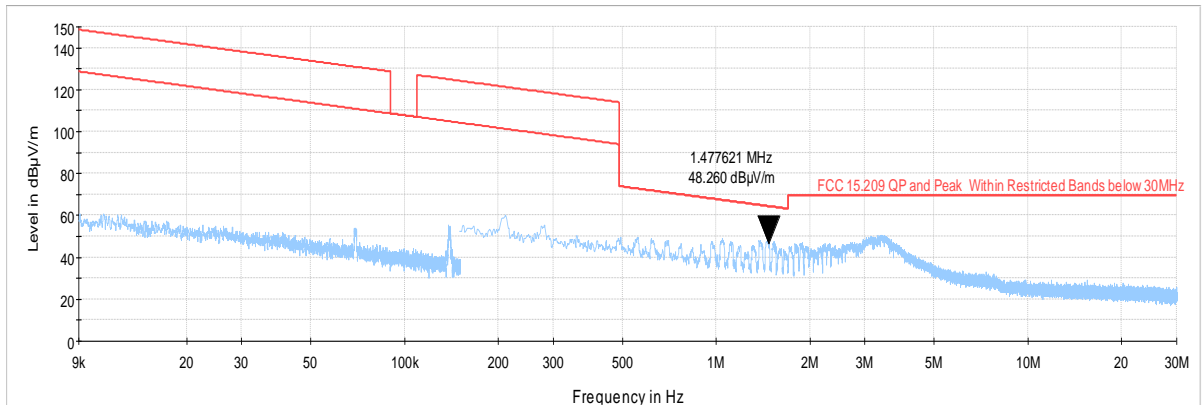
**Plot 7.13.3 Radiated emission measurements from 9 kHz to 30 MHz at the mid carrier frequency**

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Front 0 degree



**Plot 7.13.4 Radiated emission measurements from 9 kHz to 30 MHz at the mid carrier frequency**

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Front 90 degree

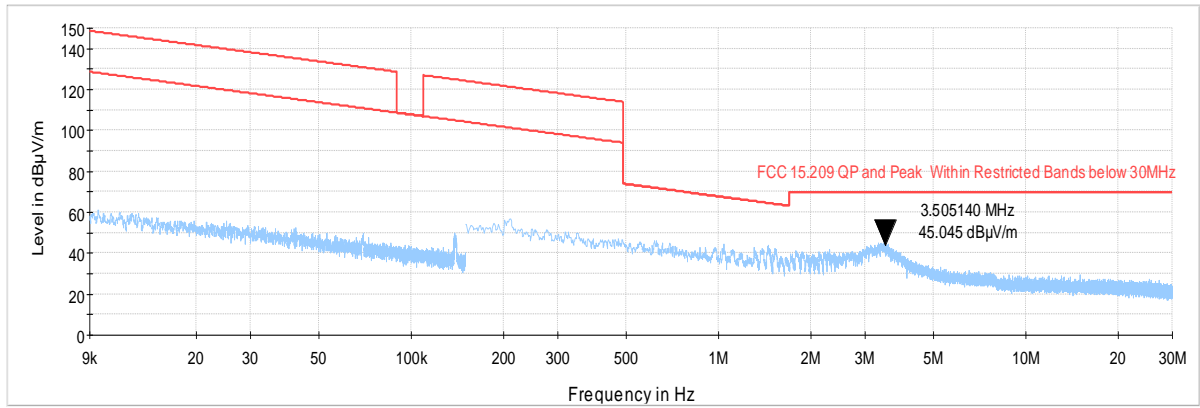




<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS		
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

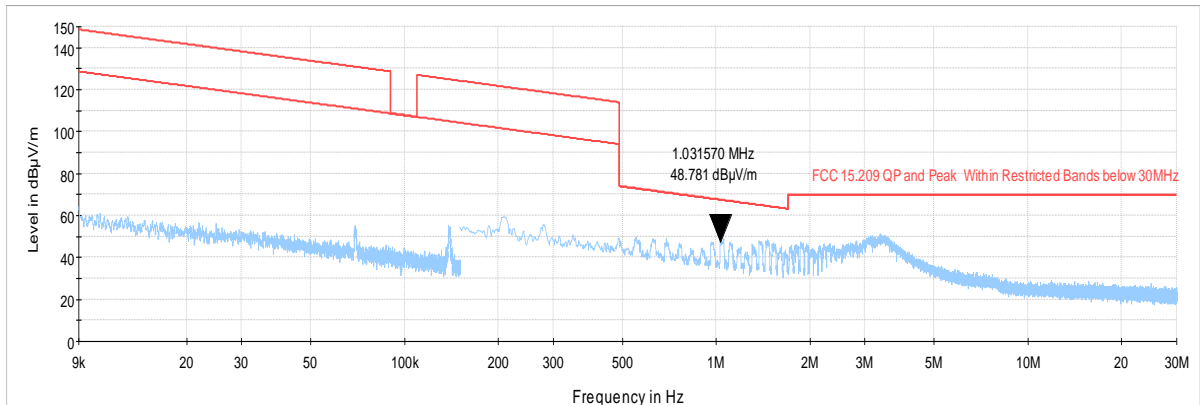
**Plot 7.13.5 Radiated emission measurements from 9 kHz to 30 MHz at the high carrier frequency**

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Front 0 degree



**Plot 7.13.6 Radiated emission measurements from 9 kHz to 30 MHz at the high carrier frequency**

TEST SITE: Semi anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Front 90 degree

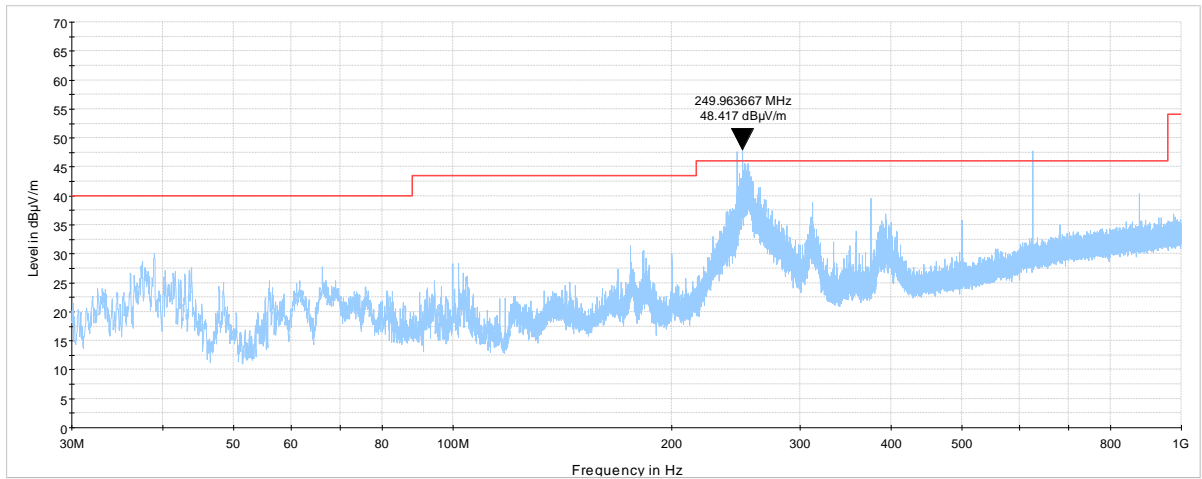




<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance		<b>Verdict:</b> PASS	
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

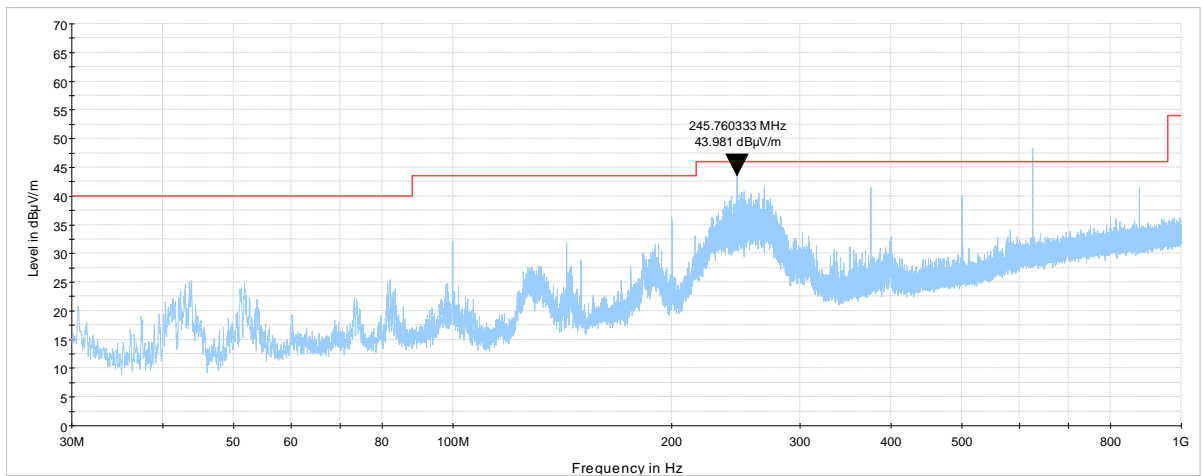
**Plot 7.13.7 Radiated emission measurements from 30 MHz to 1000 MHz at the low carrier frequency**

TEST SITE: Semi Anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Vertical and Horizontal



**Plot 7.13.8 Radiated emission measurements from 30 MHz to 1000 MHz at the mid carrier frequency**

TEST SITE: Semi Anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Vertical and Horizontal





<b>Test specification:</b> FCC section 15.407(b)1, RSS-247 section 6.2.4, Field strength of undesirable emissions			
<b>Test procedure:</b> KDB 662911; KDB 789033, ANSI C63.10, section 12.7.6 & 12.7.7			
<b>Test mode:</b> Compliance	<b>Verdict:</b> PASS		
<b>Date(s):</b> 07-Feb-19			
<b>Temperature:</b> 25 °C	<b>Relative Humidity:</b> 46 %	<b>Air Pressure:</b> 1012 hPa	<b>Power:</b> 48 VDC
<b>Remarks:</b>			

**Plot 7.13.9 Radiated emission measurements from 30 MHz to 1000 MHz at the high carrier frequency**

TEST SITE: Semi Anechoic chamber  
TEST DISTANCE: 3 m  
ANTENNA POLARIZATION: Vertical and Horizontal

